REMARKS

+

Claims 1, 16, 29, 43, and 68 have been amended.

Claims 1 - 84 remain in the case.

Reexamination and reconsideration are respectfully requested for claims 1 - 84, which have been rejected on various grounds as discussed in detail below.

The examiner is reminded of the interview between himself, the inventor, Nonnal Krasner, and applicant's representative, Bruce Greenhaus, which occurred on December 16, 2003. During the interview, amendments to the claims were discussed, but no conclusion was reached regarding patentability. One of applicant's representatives is available for further interview, which can be scheduled at the examiner's convenience. One of applicant's representatives will contact the examiner shortly to explore this possibility.

The §101 double patenting rejection

Claims 4 and 19 have been rejected under 35 U.S.C. §101, the examiner alleging that they are coextensive with claims 1 and 15 of the application serial number 09/074,021 (now issued as US Patent 6,816,710).

This rejection is not understood, since the claims cited by the examiner bear no resemblance to one another.

Claim 4 of the present application is:

4 (original). The method of claim 2 wherein said differential demodulation combines pairs of signal samples contained with said one or more SPS signals which are separated in time from one another by a multiple of a bit period of data contained within said one or more SPS signals.

Claim 1 of the '710 patent is:

1 (currently amended): A method for satellite positioning system (SPS) signal processing, said method comprising:

receiving at an SPS receiver one or more SPS signals;

removing pseudorandom noise from said one or more SPS signals to provide a first portion of a narrowband signal and a second portion of a narrowband signal; and

Feb-16-2005 04:33pm

a

summing said first and second portions, at least one of said first and second portions being weighted by a weighting factor that is a function of a signal-to-noise ratio (SNR) of at least one of said one or more SPS signals to improve the sensitivity of the SPS receiver;

÷

wherein said first portion and said second portion contain common information in said one or more SPS signals.

Claim 19 of the present application is:

19 (original). The method of claim 17, wherein said differential demodulation combines pairs of said first and second SPS signals separated in time from one another by a multiple of a bit period of data contained within said first and second SPS signals.

Claim 15 of the '710 patent is:

15 (currently amended): A method for processing a signal associated with a satellite positioning system, said method comprising:

receiving at an SPS receiver a first SPS signal containing a satellite message associated with a satellite vehicle;

receiving at said SPS receiver a second SPS signal containing said satellite message associated with said satellite vehicle;

removing pseudorandom noise from said first and second SPS signals to provide a first set of signal samples of a narrowband signal and a second set of signal samples of a narrowband signal; and

summing said first and second sets of signal samples to improve the sensitivity of the SPS receiver, said summing including weighting at least one of said first and second sets of signal samples with a weight depending on a signal-to-noise ratio (SNR) of at least one of said first and second sets of signal samples;

wherein said first set of signal samples and said second set of signal samples contain common information.

As mentioned, these claims bear no resemblance to one another, and the double patenting rejection should be withdrawn.

The §102 rejection on Murphy (USP 5,640,452)

Claims 1 - 3, 5 - 17, 20 - 29, 31, 34 - 39, 43 - 61, 65 - 68, 71 - 75, and 79 - 84 have been rejected under 35 U.S.C. §102(e) as being anticipated by Murphy.

ŧ

As amended, independent claims 1, 16, 29, 43, and 68 recite combining the first (narrowband signal) portion with common information in said second (narrowband signal) portion to improve the sensitivity of the SPS receiver, wherein the common information comprises data that is either repeated in time within the same received SPS signal or that is concurrently contained in more than one of the received SPS signals.

These limitations are not shown or suggested in Murphy, and the rejection thereupon should be withdrawn.

The §102 rejection on Stansell, Jr. (USP 5, 963,592) or Stansell, Jr., et al. (USP 6,160,841)

Claims 1 - 3, 5 - 17, 20 - 29, 31, 34 - 39, 43 - 61, 65 - 68, 71 - 75, and 79 - 84 have been rejected under 35 U.S.C. §102(e) as being anticipated by Stansell, Jr. or Stansell, Jr., et al.

As amended, independent claims 1, 16, 29, 43, and 68 recite combining the first (narrowband signal) portion with common information in said second (narrowband signal) portion to improve the sensitivity of the SPS receiver, wherein the common information comprises data that is either repeated in time within the same received SPS signal or that is concurrently contained in more than one of the received SPS signals.

These limitations are not shown or suggested either in Stansell, Jr. or Stansell, Jr., et al., and the rejection thereupon should be withdrawn.

The §103 rejection on Murphy, Stansell, Jr., Stansell, Jr., et al. and Jones

The examiner has rejected claims 4, 18, 30, 31, 33, 40, 41, 62, 63, 70, 76, 77, and 78, the examiner alleging that they are obvious from Murphy, or Stansell, Jr., or Stansell, Jr., et al. in view of Jones.

As amended, independent claims 1, 16, 29, 43, and 68, from which the rejected claims depend, recite combining the first (narrowband signal) portion with common information in said second (narrowband signal) portion to improve the sensitivity of the SPS receiver, wherein the common information comprises data that is either repeated in time within the same received SPS signal or that is concurrently contained in more than one of the received SPS signals.

17

These limitations are not shown or suggested any of the references applied in this rejection. Consequently, the independent claims are patentable over the combination of Murphy, or Stansell, Jr., or Stansell, Jr., et al. in view of Jones, and the rejection thereupon should be withdrawn.

÷

The double patenting rejection

To the extent that any judicially created double patenting rejection remains, a terminal disclaimer will be submitted upon indication of allowable subject matter to overcome this rejection.

Since claims 1 - 84, as variously amended, have been shown to be patentable over the references cited thereagainst, all as above set forth, the case is in form for immediate allowance, which is respectfully requested.

CONCLUSION

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

VIC By:

Richard A. Bachand, Reg. No. 25,107 Phone No. (858) 845-8503

Dated: February 16, 2005

QUALCOMM Incorporated Attn: Patent Department 5775 Morehouse Drive San Diego, California 92121-1714 Telephone: (858) 658-5787 Facsimile: (858) 658-2502